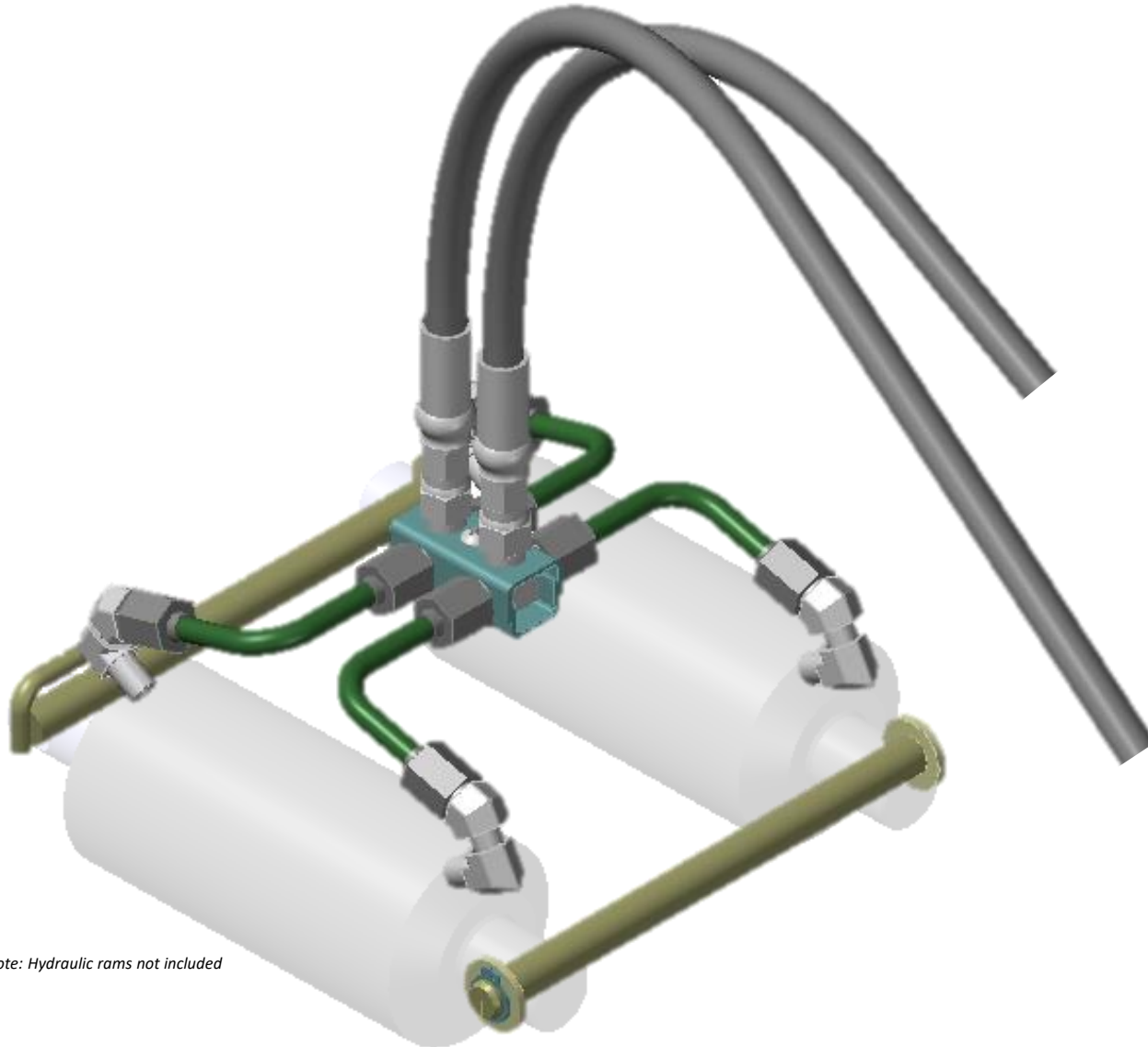


Assembly & Operator's Manual

Dual Curl Manifold Kit

Part Number: 1090619-000-000



Note: Hydraulic rams not included



Assembly & Operator's Manual

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Safety:

- Read all sections of this assembly manual before beginning installation, and follow all safety warnings posted in this manual.
- Always wear proper protective equipment, such as, but not limited to safety glasses and gloves.
- Get assistance, or use lifting device(s) for heavy loads.
- Read “Marric Products Equipment Operating Safety Precautions” before beginning installation:

Equipment Operating Safety Precautions

Marric Products, LLC. takes personal safety very seriously and can not emphasize enough that operators should always keep safety in mind whenever operating their equipment with or without Marric Products.

It is the operators responsibility to read all safety precautions in their equipment manuals and to understand the dangers and associated risks. In general, hydraulic equipment like the type provided by Marric Products, LLC. makes tasks easier to complete, however, not without risk.

Hydraulic powered equipment can generate tremendous forces that could cause injury or death to operators or bystanders, and damage equipment. Below is a list of safety precautions that must be read. Though the list is not all encompassing, it is a general overview of the risks associated with the use of tractors with lifting devices.

1. Follow all of the tractor manufacturers safety instructions and procedures for operating hydraulic valves to avoid damaging equipment and causing injury or death.
2. Hydraulic pressure spikes resulting from impact loads to attachments could result in damaged hydraulic systems.
3. Equipment should only be used after reading and understanding all safety instructions and operation manuals supplied by tractor manufacturer, and Marric Products, LLC.
4. Minors should not be permitted to operate equipment.
5. This is not a toy and can cause injury or death.
6. Do not operate under the influence of drugs or alcohol.
7. Keep hands and other body parts away from attachment at all times. Stored energy in the attachment can cause injury or death, even if the machine is off.
8. Use metal alignment bar if necessary to align attachment mounting points, never use finger(s) or body parts.
9. Never crawl under or place any body part under raised attachment with or without a load.
10. Never leave a lifted/ raised load unattended. Loads must be lowered to final resting position, and all stored energy relieved before leaving.
11. Loads may require counterbalance weights added to the tractor. Refer to the tractors manual for proper counterbalance weight distribution locations and capacities.
12. When bucket or attachment is raised, make sure load in bucket cannot roll out onto someone or back onto tractor/ operator. Never stand in front of loaded bucket.
13. Hydraulic fluid under pressure is dangerous and can cause injury or death if a hose is ruptured. Shut-off tractor immediately in the event a hose ruptures.
14. Do not drop loads into bucket, or any other type of attachment. Loads should be lifted slowly and steadily from the loads resting position. Hydraulic pressure spikes resulting from impact loads to attachments could result in damaged hydraulic systems.
15. Loads should be kept as low as possible during transport.
16. Travel on level ground whenever possible. Avoid obstacles such as, rocks, holes or loose fill that could upset the tractor. A raised bucket or attachment with a load, increases the tractors center of gravity making it more susceptible to roll over.
17. Avoid traveling on uneven surface if possible. Use caution if traveling across uneven surfaces.
18. Do not lift or transport person(s) in the bucket or any other type of attachment.
19. Loads must be uniformly distributed.
20. Do not push or lift with one side of the bucket or attachment.
21. Unbalanced or unstable loads should be secured with properly rated straps or chains.
22. All attachment pins should be installed and locked in place as soon as possible and before lifting or moving a load.
23. Loads should be raised and lowered slowly and steadily in a controlled manner. Hydraulic pressure spikes resulting from impact loads to attachments could result in damaged hydraulic systems. Do not use hydraulic lever “Float” position to lower a load.
24. Underground utility locations must be marked before digging.
25. Approach loads slowly and cautiously. Do not use the loader or any other type of attachment to ram into loads in an attempt to increase bucket fill, or loosen packed materials. Hydraulic pressure spikes resulting from impact loads to attachments could result in damaged hydraulic systems.
26. Exercise caution when under cutting high banks. Dirt slides can be dangerous and cause injury or death. Hydraulic pressure spikes resulting from impact loads to attachments could result in damaged hydraulic systems.



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Dual Curl Manifold Kit

Part Number: 1090619-000-000

System Requirements:

- John Deere 54 Plow with Marric Plow Conversion (*Part Number: 1090615-000-000*)
- 1 additional John Deere 54 Plow style hydraulic ram

Installation Tools Required:

- Ratchet/ sockets: 3/8
- Wrench: 9/16 (2), 5/8, 3/4
- Philips screw driver
- Retaining Ring Pliers
- Hammer
- Wheel chocks
- Teflon Tape (CAUTION: do not get Teflon tape into hydraulic system) or pipe dope suitable for hydraulic fittings
- Shop rags
- Mobil 1 grease

Included in this kit:

- 2 Shafts, 3 washers and 3 retaining clips
- Manifold bracket, top and bottom
- Pan head screw and nut
- 4 90° hydraulic fittings
- 4 45° hydraulic fittings
- 4 Hydraulic formed tubes with sleeves and nuts
- 2 "T" Hydraulic fittings
- Assembly & Operators Manual

Technical Support:

- Email: Customerservice@marricproducts.com
- Telephone: 610-368-2933



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Dual Curl Manifold Kit

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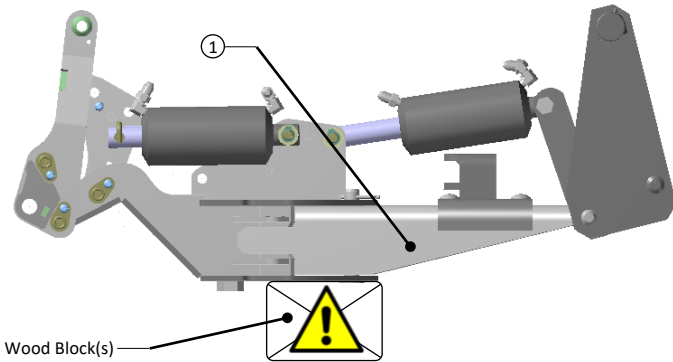
Maintenance:

- Lubricate shafts during assembly and during operation if lubricant is no longer present, Mobil 1 grease recommended.

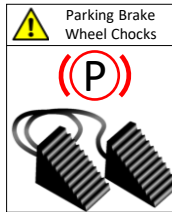
Dual Curl Manifold Kit

Part Number: 1090619-000-000

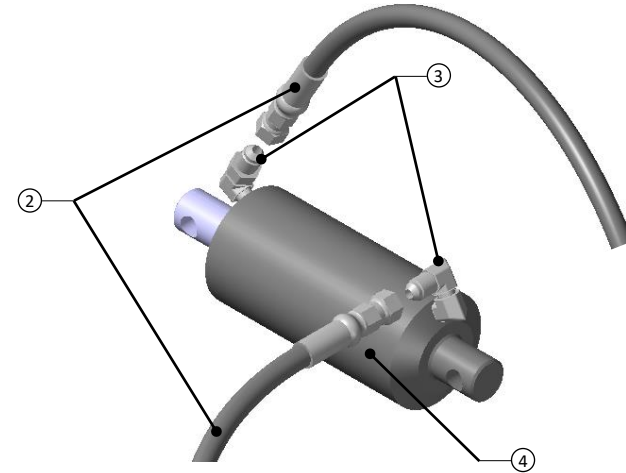
1. Install the plow on the tractor, with the Marric Plow Conversion System installed, and connect the hydraulic hoses to the tractors hydraulic ports.
2. Start the tractor and raise the lift frame (1) off the ground.
- ⚠ 3. For safety, place a block(s) of wood under the lift frame (1), to keep it in the raised position.
- ⚠ 4. Turn tractor off and set parking brake and place wheel chocks under wheels, relieve the hydraulic system pressure by actuating hydraulic levers back and forth several times.



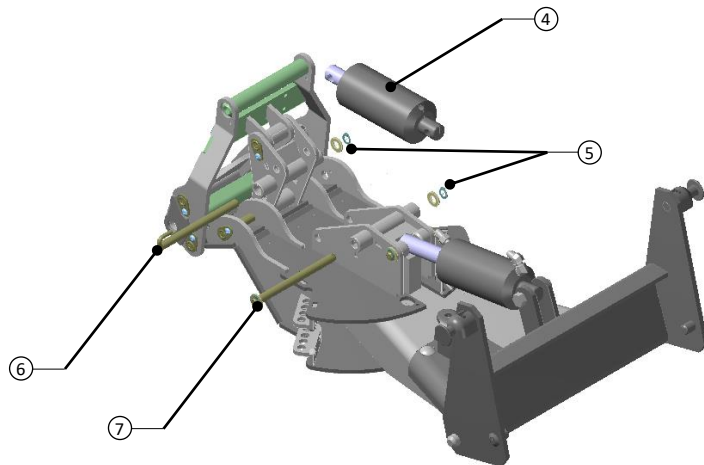
Note:
The following images shown without hydraulic hoses for clarity.



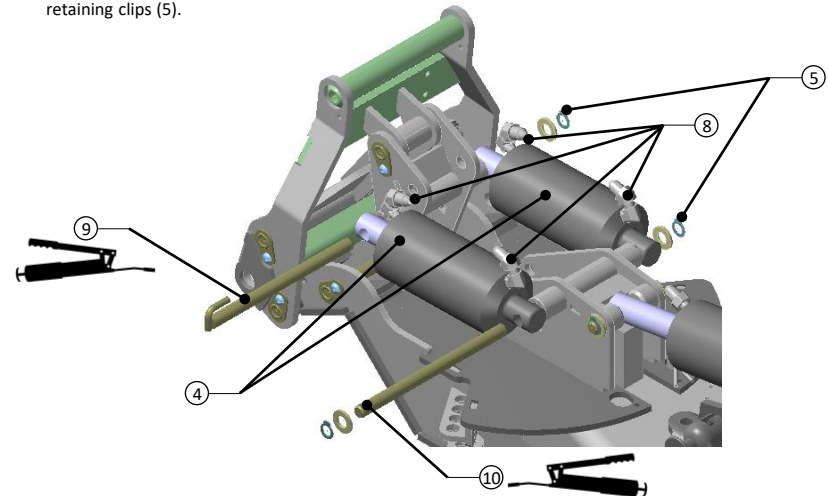
5. Disconnect the 26 inch long hydraulic hoses from the tractor and remove the two hydraulic hoses (2) and the hydraulic fittings (3) from the hydraulic lift ram (4).



6. Remove the hydraulic lift ram (4) by removing the retaining clips, washers (5) and shafts (6) (7).



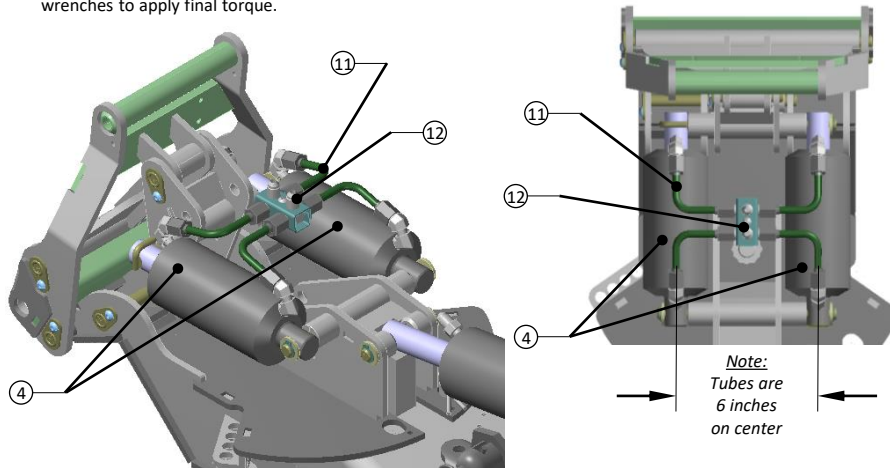
7. Install the hydraulic fittings (8) supplied in the kit. Use Teflon tape (CAUTION: do not get Teflon tape into hydraulic system) or pipe dope on the NPTF fittings only.
8. Install the hydraulic rams (4) with the longer shafts (9) (10) supplied in the kit, and secure with washers and retaining clips (5).



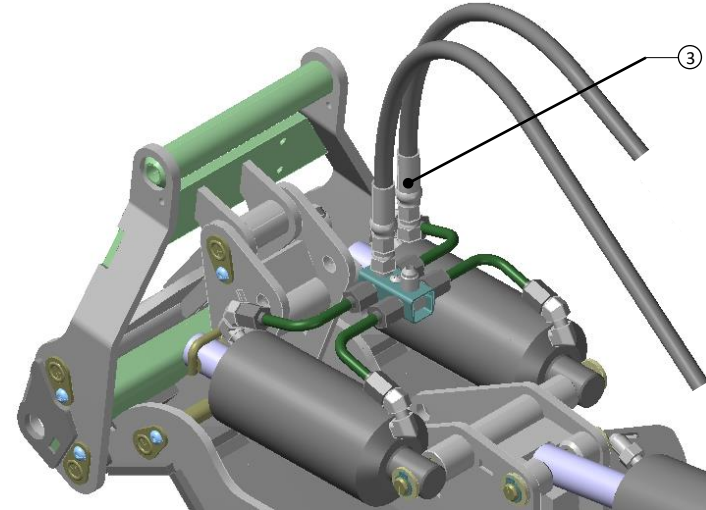
Dual Curl Manifold Kit

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9. Start the threads of the four formed hydraulic tubes (11) on the hydraulic "T" fittings in the manifold (12)
10. Place the hydraulic manifold (12) over the hydraulic rams (4) and start the first 2 – 3 threads of each fitting, loosen manifold hydraulic tube (11) threads if necessary.
11. Turn each of the hydraulic nuts incrementally and equally by hand. Once all the fittings are snug, use a pair of wrenches to apply final torque.

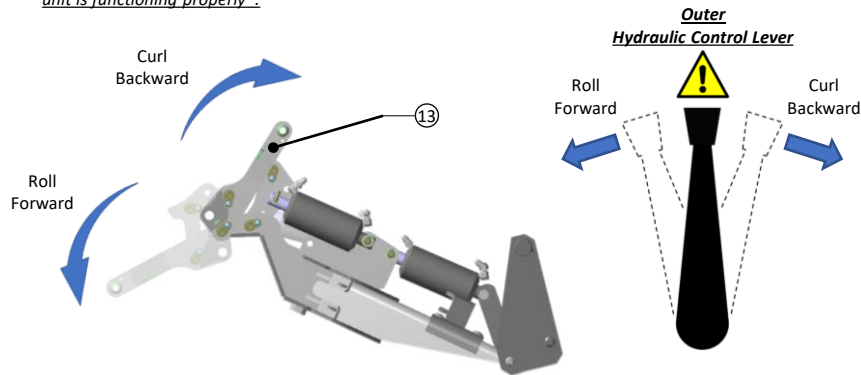


12. Reinstall the 26 inch long hydraulic hoses (3) removed in step 5 and tighten with a wrench.
13. Connect the hydraulic hoses to the tractors hydraulic ports.



CAUTION: HYDRAULIC PRESSURE CAN GENERATE FORCES RESULTING IN BODILY INJURY OR DEATH. STAND CLEAR WHILE IN OPERATION.

14. Start the tractor, using the tractors hydraulic outer lever, *slowly* pull back to curl the adapter (13) back, *verifying that the unit is functioning properly**, now roll and curl the adapter several times *verifying that the unit is functioning properly**.



*If the movements of the Marric Plow Conversion Kit are opposite with the movements of the hydraulic levers detailed above, turn the tractor off, relieve the hydraulic system pressure by actuating the hydraulic levers back and forth several times, switch the quick disconnect hydraulic hoses attached to the tractor hydraulic ports, and restart the tractor verifying proper function.

Dual Curl Manifold Kit

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▲ 15.

Congratulations!

You have successfully installed the Marric Dual Curl Manifold Kit.

